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## DELTA STEWARDSHIP COUNCIL

*A California State Agency*

April 14, 2016

**Chair**  
Randy Fiorini

Steven Garcia  
Department of Water Resources  
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**Members**  
Aja Brown  
Frank C. Damrell, Jr.  
Patrick Johnston  
Mary Piepho  
Susan Tatayon

**Executive Officer**  
Jessica R. Pearson

### **RE: Comments on the Proposed Mitigated Negative Declaration (MND) for the Decker Island Levee Repair Demonstration Project, SCH #2016032048**

Dear Mr. Garcia:

Thank you for opportunity to submit our comments regarding the Proposed Mitigated Negative Declaration (MND) for the Decker Island Levee Repair Demonstration Project. The Department of Water Resource (DWR) is planning to repair 210 linear feet of levee along Horseshoe Bend at the northeastern tip of Decker Island. This project would occur on property owned by the California Department of Fish and Wildlife (CDFW). The work would also happen adjacent to the 32-acre Decker Island Habitat Restoration site, which was created through a collaborative effort by DWR and CDFW in 1999-2002 to construct 32 acres of riparian forest and tidal wetland habitat. DWR is proposing to repair 100 feet of levee using vegetated riprap, while the other 110 feet will be repaired using a system of interlocked, soil-filled geo-textile bags with vegetation interspaced among the bags. This particular interlocked gripper bag system has been previously used successfully at sites in the Pacific Northwest and DWR will evaluate its effectiveness in the Delta.

As you may know, the Delta Stewardship Council (Council) is a state agency created by the California Legislature through the Delta Reform Act of 2009 to develop and implement a legally enforceable long-term management plan for the Delta and Suisun Marsh. The Delta Plan applies a common sense approach based on the best available science to achieve the coequal goals of protecting and enhancing the Delta ecosystem and providing for a more reliable water supply for California, while protecting and enhancing the unique cultural, recreational, and agricultural values of the Delta as an evolving place.

### **General Comments**

We applaud the effort by DWR staff to attempt alternative approaches to levee repair versus solely utilizing traditional rock riprap. Levees that are riprapped are often devoid of significant waterside vegetation, with the exception of annual grasses and a few sparse

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*"Coequal goals" means the two goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. The coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place."*

– CA Water Code §85054

trees. Additionally, rock riprap also alters nearshore aquatic habitat by providing features which often benefit non-native piscivorous fish and degrading conditions for native Chinook salmon which prefer softer bank substrates and more woody vegetation. For more information on this topic, we encourage you to review a report our Council recently endorsed titled "Improving Habitat along Delta Levees" (available at <http://deltacouncil.ca.gov/docs/delta-council-meeting-levees-white-paper/improving-habitats-along-delta-levees-review-past>); this report summarizes lessons learned from monitoring reports and through interviews with experts about which habitat designs along levees may provide greater benefits to target native species.

### **Opportunities to Inform Best Available Science**

As recommended by the Delta Plan, our Delta Science Program developed the Delta Science Plan which identifies a need for fostering integrative synthetic thinking across the Delta science and management community. More specifically, the Delta Science Plan calls for scientists and resource managers to habitually consider the larger context and linkages that their projects and programs tie into, which will help facilitate effective adaptive management and reduce knowledge gaps. The Decker Island Levee Repair Project will provide a unique opportunity to do a side-by-side comparison of the effectiveness of the interlock gripper bag system approach versus using riprap. The MND mentions that that the project site will be regularly monitored for erosion, vegetation establishment, gripper bag performance, and ease of construction and maintenance; results of these monitoring efforts will be compiled in annual reports to CDFW and DWR management. We hope these future monitoring assessment reports will be made available to the public so it can add to the pool of "best available science" and potentially help guide the design and maintenance of other future levee improvement projects.

The Bank Protection Work Group (BPWG) of the Lower American River Task Force is currently reviewing and developing feasible habitat-friendly mitigation measures for the erosion sites along the lower American River. We encourage the DWR project team to consult with the BPWG (the group is facilitated by Gregg Ellis, who can be contacted at [Gregg.Ellis@icfi.com](mailto:Gregg.Ellis@icfi.com)) as we believe such a dialogue will be useful to both that stakeholder group and the DWR project team in thinking about levee erosion control design, maintenance, and monitoring.

### **United States Army Corps of Engineers (USACE) Vegetation Policy**

The Delta Plan includes a recommendation that USACE should agree with CDFW and DWR on a variance for Delta levees from the USACE levee vegetation policy (Delta Plan Policy **ER R4**). We hope the DWR project team will consult with USACE to investigate if implementation of the interlocked gripper bag system for levee erosion control would be an acceptable approach for Delta levees to receive a variance from the USACE vegetation policy. The outcome of this project can be valuable for the USACE to reevaluate the levee vegetation issue in the Delta as it updates its current vegetation policy. Additionally, the

findings from this project could also support DWR's *Levee Vegetation Research Program*, which has done exhaustive research to demonstrate how, given proper management, vegetation on levees can both strengthen the integrity of the levee structure and provide habitat improvements.

### **Delta Levees Investment Strategy (DLIS)**

The Delta Reform Act of 2009 called on the Council to lead a multi-agency effort to establish and adopt priorities for State investments in levee operation, maintenance, and improvement for both project and non-project levees in the Delta (Water Code section 85306). The Council is now engaged in updating these priorities through development of the DLIS (for more information, please refer to <http://deltacouncil.ca.gov/delta-levees-investment-strategy>). The DLIS team is collecting information on potential levee and habitat related projects to develop levee improvement investment concepts. As such, the levee improvement investment concepts may need to incorporate information from this proposed project and so we hope for close coordination between the DWR project team and our DLIS team.

### **Final Remarks**

Overall we support DWR in this project and look forward to the findings by DWR regarding the effectiveness of the interlocked gripper bag system. We anticipate this information will be extremely useful to Levee Maintaining Agencies in helping to identify levee erosion control methods that not only provide flood risk reduction benefits, but are also both cost-effective and protect/improve nearshore riparian habitat relative to riprapping channel banks. If you have any questions regarding our comments, feel free to contact Daniel Huang at 916-445-5339 or [daniel.huang@deltacouncil.ca.gov](mailto:daniel.huang@deltacouncil.ca.gov)

Sincerely,

A handwritten signature in blue ink, appearing to read "Jessica Davenport".

Jessica Davenport  
Acting Deputy Executive Officer, Planning  
Delta Stewardship Council

Cc Erik Vink, Delta Protection Commission  
Gregg Ellis, ICF International